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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/661,764	09/14/2000	Charles Schinner	10001934-1	1332

22879 7590 02/17/2004

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EXAMINER	
JERABEK, KELLY L	
ART UNIT	**PAPER NUMBER**
2612	

DATE MAILED: 02/17/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/661,764	SCHINNER ET AL.	
	Examiner	Art Unit	
	Kelly L. Jerabek	2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-13* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-13* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *14 September 2000* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *2*.
4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Specification

The disclosure is objected to because of the following informalities: The serial number and date areas of the related applications section must be completed.

Appropriate correction is required.

Drawings

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: Figure 1 does not include 33. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-11 rejected under 35 U.S.C. 103(a) as being unpatentable over Parulski et al. US 5,610,654 in view of Safai et al. US 6,617,469.

Re claim 1, Parulski discloses in figure 1 a digital camera having a range of exposure times (col. 2, lines 4-11; tables 1,2, and 3). The camera includes a CCD (14) for converting light into an electrical signal. In addition, the camera includes a programmable amplifier (16) that is responsive to manual indication from a user to adjust the strength of the electrical signal (col. 2, lines 30-36). The examiner is interpreting "the image is sufficiently obfuscated to lack discernible features" as an image being viewed at a wide-angle end of a zoom range such that details of the image cannot be determined without zooming toward a certain end of the zoom range. The gain of the programmable amplifier is adjusted based on the light level reading from the lens (col. 2, lines 40-43). Although Parulski discloses all of the above concepts, he does not state that the camera includes a LCD to display and review the captured images. Since claim 1 states that the user must indicate that the image is sufficiently obfuscated, a display of the image must be provided.

Safai discloses a digital camera having a display device (fig. 1). The digital camera (100) includes a display device (108) that has the capability of showing images formed by the lens and CCD on the display device (108) prior to image storage (col. 1, lines 31-35). Therefore, it would have been obvious to include the display device (108) as disclosed by Safai in the digital camera disclosed by Parulski. Doing so would

provide a means for displaying live images on a display device and allowing the user to zoom in and out depending on the quality of the observed image.

Re claim 2, the automatic exposure control system disclosed by Parulski optimizes the tradeoff between image blur and noise by adjusting the gain of a programmable amplifier (16) in accordance with lens focal setting (col. 4, lines 62-67). The lens focal setting is changed as the user changes the zoom settings. Therefore, the programmable amplifier is adjusted when a user indicates that the current image is blurred (col. 3, lines 28-41).

Re claim 3, Safai discloses a multiplying means for increasing the strength of the electrical signal (col. 5, lines 55-62). In addition, the camera has the capability of providing live-view observation for displaying images prior to storage (col. 1, lines 31-35; col. 5, lines 18-27).

Re claim 4, Safai discloses an analog to digital converter (206) and a digital multiplier means for increasing the strength of a digital signal (208) (col. 5, lines 55-62).

Re claim 5, Parulski states that the digital multiplier means can be a digital multiplier (col. 4, lines 46-52).

Re claim 6, Safai discloses a digital multiplier that is a microprocessor (fig. 2: 208; col. 5, lines 55-62).

Re claim 7, see claim 1.

Re claim 8, in the digital camera disclosed by Parulski the strength of the image signal is increased in incremental step values according to tables 1,2, and 3 when the zoom button (30) is pressed by the user. The programmable amplifier (16) is adjustable to gains of 1,2,4, and 8 relative to the ISO speed settings of the image sensor (col. 2. lines 16-21). Each of these incremental steps is made in response to manual indication from the user as the zoom controls (30) are pressed (col. 2, lines 30-45).

Re claim 9, the step of increasing the strength in incremental strength values stops when the image signal reaches a maximum strength level. It can be seen in tables 1,2, and 3 that a maximum gain of 8 is applied when the ISO speed is 400, therefore, the signal cannot be increased further in strength when a gain of 8 is already applied to it (col. 2, lines 16-21).

Re claim 10, see claim 9. The maximum gain that may be applied to the amplifier is 8 (col. 2, lines 16-21). When the maximum gain is applied a maximum signal strength level will be obtained.

Re claim 11, Re claim 8, in the digital camera disclosed by Parulski the strength of the image signal is decreased in incremental step values according to tables 1,2, and 3 when a zoom button (30) is pressed by the user. The programmable amplifier (16) is adjustable to gains of 1,2,4, and 8 relative to the ISO speed settings of the image sensor (col. 2. lines 16-21). Each of these incremental steps is made in response to manual indication from the user as the zoom controls (30) are pressed (col. 2, lines 30-45).

Claim 12 rejected under 35 U.S.C. 103(a) as being unpatentable over Parulski in view of Safai and further in view of Fellegara et al. US 2001/0015760.

Parulski in view of Safai discloses all of the limitations of claim 7. However, Parulski in view of Safai does not state that the buffered image is repeatedly refreshed at a given frame rate independently of LCD brightness and contrast controls.

Fellegara discloses a digital camera with quick review of last captured image (fig. 6). The main display screen unit (36) of the camera is continuously refreshed by frame rate signals provided by the ASIC (122) and the microcontroller (page 5, paragraph 44). Fellegara makes no mention of LCD brightness or contrast controls being associated with the frame rate, thus this refreshment is independent of the LCD brightness and contrast controls. Therefore, it would have been obvious to include the ASIC (122) and microcontroller as disclosed by Fellegara in the digital camera disclosed by Parulski in

view of Safai. Doing so would provide a means for repeatedly refreshing the buffered image at a given frame rate independently of the LCD brightness and contrast controls.

Claim 13 rejected under 35 U.S.C. 103(a) as being unpatentable over Parulski in view of Safai and further in view of Nakai et al. US 5,311,245.

Parulski discloses in figure 1 a digital camera having a range of exposure times (col. 2, lines 4-11; tables 1,2, and 3). The camera includes a CCD (14) for converting light into an electrical signal. In addition, the camera includes a programmable amplifier (16) that is responsive to manual indication from a user to adjust the strength of the electrical signal (col. 2, lines 30-36). The zoom in and zoom out switches provided in the user controls (30) are adjusted to sufficiently obfuscate the image (col. 2, lines 30-34). The gain of the programmable amplifier is adjusted based on the light level reading from the lens (col. 2, lines 40-43). The look-up tables (1,2,3) disclosed by Parulski list different exposure times according to different aperture values (f#'s). The tables show that an aperture value of 4 corresponds to an exposure time of greater than 13.33 milliseconds (tables 1,2,3). Although Parulski discloses all of the above concepts, he does not state that the camera includes a LCD to display and review the captured images. Since claim 1 states that the user must indicate that the image is sufficiently obfuscated, a display of the image must be provided.

Safai discloses a digital camera having a display device (fig. 1). The digital camera (100) includes a display device (108) that has the capability of showing images

formed by the lens and CCD on the display device (108) prior to image storage (col. 1, lines 31-35). Therefore, it would have been obvious to include the display device (108) as disclosed by Safai in the digital camera disclosed by Parulski. Doing so would provide a means for displaying live images on a display device and allowing the user to zoom in and out depending on the quality of the observed image.

Parulski in view of Safai discloses a all of the above limitations. However, Parulski in view of Safai does not state that a set of control icons are automatically displayed whenever the exposure time of the image capture device is 13.33 milliseconds or greater.

Nakai discloses a digital camera including an exposure arithmetic circuit (40). At step #15 (fig. 6a) the exposure time (Tv) is discriminated as to whether is falls between Tvmin and Tvmax. If Tv is greater than Tvmax a warning is automatically sent out informing the photographer of overexposure (col. 20, lines 42-46). In the "A-priority mode" Tvmin and Tvmax are controlled according to the preset aperture value (F-number) (col. 18, lines 52-58). In addition, Nakai states that the F-number range may vary from F2 to F22 (col. 17, lines 54-64), therefore the exposure time exceeds 13.33 milliseconds. Although Nakai does not explicitly state that a set of control icons is displayed when Tv is greater than Tvmax, he does provide a means for determining an overexposure state. According to Nakai once an overexposure state is determined an automatic warning is sent out, however it would have been obvious to use this determination to control other functions of the camera such as displaying control icons.

Therefore, it would have been obvious to include the overexposure discrimination means as disclosed by Nakai in the digital camera disclosed by Parulski in view of Safai. Doing so would provide a means for automatically displaying a set of control icons whenever the exposure time exceeds 13.33 milliseconds.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Nutting (US 4,780,766) discloses a still video camera having effective imager sensitivity optimized for electronic preview. The material regarding image amplification and preview is pertinent material.

Kimura et al. (US 5,008,757) discloses an electronic still camera. The material regarding amplification gain and exposure time is pertinent material.

Contacts

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Kelly Jerabek whose telephone number is (703) 305-8659. The examiner can normally be reached on Monday - Friday (8:00 AM - 5:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy Garber can be reached at (703)-305-4929.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4700.

The fax number for submitting all Official communications is (703) 872-9306.

The fax number for submitting informal communications such as drafts, proposed amendments, etc., may be faxed directly to the Examiner at (703) 746-3059.

KLJ

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